

ART. VI. A NEW NOTOSTRACAN GENUS FROM
THE ORDOVICIAN OF SIBERIA.

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In the Ordovician strata of Europe and North America there have long been known to occur peculiar little fossils which paleontologists have had difficulty in classifying. They have been considered by some authors to be the remains of the carapaces of crustaceans of the order Notostraca. As a number of new species and genera have recently been discovered by one of us (Kobayashi)* in Upper Cambrian and Ordovician strata in Eastern Asia, and the distribution of these peculiar fossils is of unusual interest, he is now making a further comprehensive study of the group. Meanwhile it seems desirable to record the discovery of one new species, apparently the representative of a new genus, in a collection, secured from northern Siberia some years ago by Dr. I. P. Tolmachoff, Curator at the Carnegie Museum of Pittsburgh, which we are now studying. The collection contains besides several species of *Wanwania*, *Ribeiria*, *Ribeirella*, *Ischyrina*, and *Eopteria*.

Our specimens came from a boulder, believed to be of Medial Ordovician age, that was found on the right bank of the Moyero River, six miles above the mouth of the Ukdama River, in northern Siberia. We are indebted to Dr. Tolmachoff for the opportunity to examine and describe them, and we take pleasure in naming the genus in his honor. Only the characterization of the genus and the description of the genotype are presented here. The description of the other species will be included in a memoir, describing all the species in the collection, which we are preparing.

*T. Kobayashi (1933) Faunal Study of the Wanwanian (Basal Ordovician) Series with Special Notes on the Ribeiridæ and the Ellesmereoceroids, Jour. Fac. Sci. Imp. Univ. Tokyo, Sect. II, Vol. III, Pt. 7.

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Class CRUSTACEA

SUBCLASS EUCRUSTACEA

SUPERORDER BRANCHIOPODA

Order NOTOSTRACA Sars

Family RIBEIRIDÆ Kobayashi

Genus TOLMACHOVIA, new genus

The chief diagnostic characters of this genus are the fine concentric striations on the outer surface and, internally, the pair of vertical clavicles connected by a linear thickening, several concentric folds in the anterior half, and a radial fold running diagonally across the posterior. The genus resembles Billings' genus, *Ischyryna*, in its outline, double clavicles, and posterior plication, but differs fundamentally from that genus in its external markings, which are radial in *Ischyryna*, but concentric in *Tolmachovia*.

The genotype is the new species, *Tolmachovia concentrica*, described below. The genus is at present known only from the Middle Ordovician of northern Siberia.

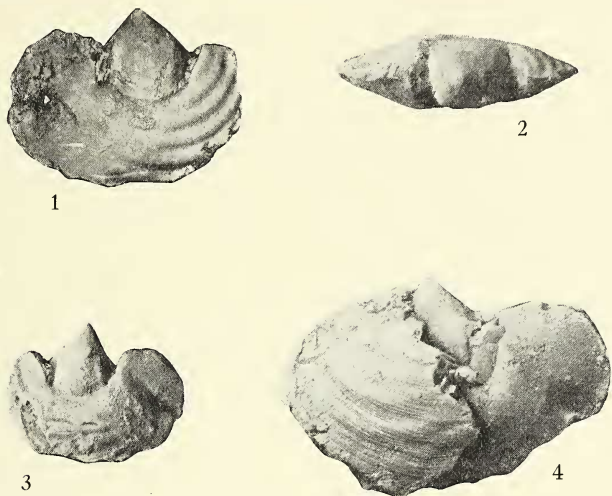
***Tolmachovia concentrica*, new species**

(Text figs. 1-4.)

The carapace is moderately convex, depressed, and ovate, with a subangulate, subcentral umbo. The clavicles are equally developed and are connected by a ridge. There are five or six additional ridges, running parallel to the preceding ridge, in the anterior portion and on the ventral side of the ridge. A radial ridge crosses the posterior portion diagonally, starting from the posterior clavicle. Sometimes one or two additional, finer, ridges diverge from the beak to the venter on the inner side of the preceding radial.

Only one of our specimens has the carapace preserved on its anterior portion. This carapace is composed of a thick layer of calcareous material. Its surface is gently folded. Five folds were counted. They presumably correspond to the internal concentric ridges of the valve. The whole surface is marked by innumerable fine concentric lines. As the texture of the shell of the posterior portion cannot be seen on any of our specimens, we have not been able to determine whether or not the radial internal ridge affects the surface to form a radial keel. In the dorsal view of the internal mould the umbo is

somewhat pyramidal in shape, and its four edges are sub-angulate. The scars of the clavicles are found a short distance below the apex, where the faces of the pyramid are very flat. The other faces are



FIGS. 1-4. *Tolmachovia concentrica*, new species.

somewhat convex. In some of our specimens the concentric markings are not confined to the ventral part, but are present all the way up to the umbo.

The holotype is No. ¹⁸⁴⁹/_{2027a} in the Geological Museum of the Russian Academy of Science. Paratypes are Nos. ¹⁸⁴⁹/_{2027b}, ¹⁸⁴⁹/_{2027c}, and ¹⁸⁴⁹/_{2027d}. All are figured except d. The holotype is illustrated in figures 1 and 2.